

RESPONDING LOGISTICALLY TO FUTURE NATURAL AND MAN-MADE DISASTERS AND CATASTROPHES

BY

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USAWC STRATEGY RESEARCH PROJECT

**RESPONDING LOGISTICALLY TO FUTURE NATURAL AND MAN-MADE
DISASTERS AND CATASTROPHES**

by

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ABSTRACT

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On 28 Aug 05, Hurricane Katrina hit Louisiana and Mississippi and was among the most devastating, destructive and largest natural catastrophes in United States history. Hurricane Katrina impacted 93,000 square miles and killed 1,300 people. More than two years later, the U.S. has still not fully recovered. The federal government and FEMA received widespread criticism for the slow and ineffective response to Hurricane Katrina. Inadequate logistical planning and ineffective execution of support activities played a large part in the poor response efforts. Federal resource managers had great difficulty in determining logistics requirements. Even when Federal resource managers had a clear understanding of what was needed, they often could not determine accurately whether the Federal government had the requisite supplies and equipment nor could track the provision of those supplies to those in need. This paper focuses primarily on the key logistics aspects of our government's ability to respond to natural disasters or catastrophes. It examines the responsible organizations, processes and governing documents; highlights current initiatives for improving logistical response and sustainment activities; assesses our current state of logistics response readiness; and recommends several areas for continued improvement.

RESPONDING LOGISTICALLY TO FUTURE NATURAL AND MAN-MADE DISASTERS AND CATASTROPHES

Despite all we do, however, Hurricane Katrina was a deadly reminder that we can and must do better, and we will. This is the first and foremost lesson we learned from the death and devastation caused by our country's most destructive natural disaster: No matter how prepared we think we are, we must work everyday to improve.

—Frances Fragos Townsend,
Assistant to the President for Homeland Security and Counterterrorism¹

Introduction

On 28 Aug 05, Hurricane Katrina hit Louisiana and Mississippi and was among the most devastating, destructive, expensive and largest natural catastrophes in United States (U.S.) history. Hurricane Katrina impacted 93,000 square miles and killed 1,300 people.²

More than two years later, the U.S. has still not fully recovered. The response to Hurricane Katrina by the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) and other Federal agencies, was roundly criticized as being uncoordinated and inadequate. Much of that criticism focused on ineffective logistical preparedness and inefficient support and sustainment activities for the overall federal response effort.³ Despite subsequent intense Congressional and Executive Branch scrutiny and public demands for DHS and FEMA reform, questions remain whether the logistical organizations and support and sustainment processes are better prepared now to respond to similar disasters. This paper focuses primarily on the key logistics aspects of our government's ability to respond to natural disasters or catastrophes. It examines the responsible organizations, processes and governing documents; highlights current initiatives for improving logistical response and

sustainment activities for disasters; assesses our current state of logistics response readiness; and recommends several areas for continued improvement.

Background

In the comprehensive White House assessment of the Federal response to Hurricane Katrina, the report cited 17 critical challenges.⁴ Significantly, logistics was an important component of nearly every one of the cited challenges and was directly addressed in one of the lessons:

LESSON LEARNED: The Department of Homeland Security, in coordination with State and local governments and the private sector, should develop a modern, flexible, and transparent logistics system. This system should be based on established contracts for stockpiling commodities at the local level for emergencies and the provision of goods and services during emergencies. The Federal government must develop the capacity to conduct large-scale logistical operations that supplement and, if necessary, replace State and local logistical systems by leveraging resources within both the public sector and the private sector.⁵

The report clearly outlined a compelling requirement for logistical reforms in order to improve overall federal disaster response preparedness.

Logistical support and sustainment within disaster response efforts introduces a wide range of challenges. Generally, each responding agency possesses unique internal logistical support functional organizations and processes that have little or no cross-agency interoperability or connectivity. Thus, you have redundant service supply and distribution chains; no cross-agency inventory or in-transit asset visibility; disjointed and disparate request and support procedures; and incompatible logistical management Information Technology (IT) systems and data bases. All these factors make synchronizing logistical support efforts at the federal level problematic. Moreover, disasters by their very nature make accurate determination of support and supply

requirements difficult. Usually, normal means of communication and transportation are disrupted or completely destroyed and the normal infrastructure used to provide public and private services and supplies is incapacitated. All these problems are magnified during catastrophic incidents and were clearly evident in the Katrina disaster response.

Throughout the response, Federal resource managers had great difficulty determining what resources were needed, what resources were available, and where those resources were at any given point in time. Even when Federal resource managers had a clear understanding of what was needed, they often could not readily determine whether the Federal government had that asset, or what alternative sources might be able to provide it.⁶

Understanding Logistics and Federal Disaster Response to Catastrophic Events

Logistics is defined as “supply, transportation, distribution, maintenance, services, security assistance, facilities engineering, and logistics technical system development and application.”⁷ The primary purpose of logistics is to deliver adequate equipment, supplies, and services to the right places at the right time to support local, state and Federal emergencies.

Within the National Response Plan, there are special procedures for responding to catastrophic events. The National Response Plan defines a catastrophic incident as:

Any natural or manmade incident, including terrorism that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. A catastrophic event could result in sustained national impacts over a prolonged period of time; almost immediately exceeds resources normally available to State, local, tribal, and private-sector authorities in the impact area; and significantly interrupts governmental operations and emergency services to such an extent that national security could be threatened. All catastrophic events are *Incidents of National Significance*.⁸

Based on the criteria established in Homeland Security Presidential Directive-5 (HSPD-5), catastrophic incidents are those high-impact events that require a

coordinated and effective response by an appropriate combination of federal, state, local, tribal, private sector, and non-governmental entities. There are several key civilian and military agencies that provide critical logistics support and help achieve unity of effort during responses to catastrophic incidents.⁹

U.S. Department of Homeland Security (DHS)

The DHS was established in January 2003 and has since gone through a major transformation in an attempt to improve its role in securing the Nation. The DHS's specified mission is to "Lead the unified national effort to secure America, prevent and deter terrorist attacks, protect against and respond to threats and hazards to the Nation, and ensure safe and secure borders, welcome lawful immigrants and visitors, and promote the free-flow of commerce."¹⁰

The breadth and scope of the DHS mission is profound and has some negative consequences. In a recent National Public Radio interview, Homeland Security Secretary Michael Chertoff expressed his impatience with both the widespread criticism of his organization and the convoluted reporting channels. He indicated that if critics don't like what the department is doing, they should come up with a better idea.¹¹ This response by the Secretary points out the level of frustration being experienced by the officials charged with accomplishing the DHS mission and correcting the problems so widely publicized during Katrina and its aftermath.

Nevertheless, DHS has moved forward with needed organizational reforms focusing on seven specific goals, six of which pertain directly to disaster response capability.¹² Additionally, Strategic Goal 4 of the DHS Strategic Plan is to lead, manage and coordinate the national response to acts of terrorism, natural disasters, or other

emergencies and addresses the *logistics support* associated with responding to acts of terror and other disasters. The DHS intends to

strengthen the national capability to respond to disasters of all types, including terrorism, through the integration of Department of Homeland Security response systems and teams and the completion of catastrophic all-hazard plans for the Nation's most vulnerable communities and geographic areas, including tactical elements to ensure coordinated response operations, logistics and support. We will provide health and medical response readiness through integrated planning, surge capacity to address health and medical emergencies or acts of terrorism and will develop the logistical capacity to provide intermediate emergency housing to large displaced populations following major disasters.¹³

Securing adequate funding to carry out the Strategic Plan is always difficult; however, DHS continues to make progress in funding. For instance, in President Bush's fiscal year 2009 budget request for the Department of Homeland Security (DHS), he requested \$50.5 billion in funding, which is an increase of 6.8 percent over the 2008 fiscal year level.¹⁴ These budget increases should enable DHS to continue to make improvements in the Federal Emergency Management Agency (FEMA) which is charged with coordinating and directing the logistical response to disasters.

Federal Emergency Management Agency (FEMA)

FEMA, formerly an independent agency, became part of the Department of Homeland Security in March 2003. FEMA is responsible for directing the federal response to the nation's natural and man-made disasters. FEMA's primary mission is to reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting the Nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.¹⁵

There are 10 regions¹⁶ that fall under the FEMA umbrella and each region is assigned a Defense Coordinating Officer to plan, coordinate, and integrate Defense Support of Civil Authorities (DSCA) with local, state, tribal, and Federal agencies. FEMA also initiates mitigation activities, trains first responders, works with state and local emergency managers, and manages the National Flood Insurance Program and the U.S. Fire Administration.¹⁷

Correspondingly, FEMA is the primary agency for logistics management and performs as a coordinating agency. Due to its role in providing federal funding, FEMA has been dubbed by other agencies as a “paycheck” to support local and State responders. Local and state agencies are termed “first responders” and are responsible for leading the immediate response efforts. First responders include personnel that serve in fire service, law enforcement and emergency medical capacities. The National Response Framework is a ‘bottoms-up’ tiered response approach that begins with local and state response and, only if required, progresses to federal assistance. FEMA will defer to the first responders at the state and local levels to handle disasters and will intervene or provide resources (equipment, supplies or funding) at the request of the governor and only if the state lacks the resources or if the first responders are overwhelmed.

Tapping into FEMA resources is a deliberate process and requires the state's governor to submit a letter to the President requesting formally to invoke the Robert T. Stafford Disaster Relief and Emergency Assistance Act (also known as the Stafford Act).¹⁸ In the request, the governor estimates resources necessary to assist state and local personnel responding to the incident.

Similarly, before FEMA can provide funding to support a major disaster, the President must first declare the incident a disaster. This authorizes the Federal government to reimburse the state for a predetermined period. In the case of a catastrophe or major disaster, FEMA coordinates emergency food and water, medical supplies and services, search and rescue operations and transportation assistance with the help of 28 federal partners, the Red Cross and local emergency management crews.¹⁹

FEMA has been under close scrutiny since Hurricane Katrina and this has evoked some of the harshest criticism. Some sample headlines include: “Tons of Food Spoiled As FEMA Ran Out Of Storage Space.” (Washington Post, 4/13/07);²⁰ “FEMA Red-Faced Over Staged News Conference;”²¹ “Doesn’t FEMA Know There Are Starving Children? \$40 million in Food Thrown Away!” (Associated Content, 4/13/07);²² and “FEMA to Melt \$24 Million in Unused Ice” (Congressional Quarterly 7/16/07).²³ As the headlines reflect, FEMA received harsh criticism for destroying six million meals-ready-to eat valued at \$40 million due to a lack of storage space with proper refrigeration; issued an apology for staging a Washington news conference in which actual reporters could not ask questions; and was faced with a \$3.4 million fee to melt \$24 million in ice it originally purchased for Hurricane Katrina victims but was not used for that or subsequent disasters. These negative criticisms have contributed to the impetus to enact needed logistical reforms.

FEMA’s Organizational Restructuring: Logistics Management Directorate (LMD)

In April 2007, FEMA stood up its Logistics Management Directorate (LMD), which is responsible for policy, guidance, standards, execution and the governance of logistics

support, services and operations. FEMA's intent is to institutionalize the development and coordination of strategic logistics planning, operations and management while pushing operational control and execution down to the LMD. As the 'National Logistics Coordinator', LMD's mission is to effectively plan, manage and sustain the national logistics response and recovery operations in support of domestic emergencies and special events. LMD has recently hired 20 of 21 key personnel and is organizing around its four core competencies: Logistics Operations, Plans and Exercises, Distribution Management and Property Management. Each competency has associated roles, missions and functions that provide the framework for establishing LMD's internal organizational structure.²⁴

In a recent interview, William "Eric" Smith, the first Assistant Administrator, Logistics Management Directorate, stated that before the Logistics Directorate was established, logistics was an afterthought and was embedded within a branch of another division within a directorate. He said Hurricane Katrina dramatically emphasized the importance of logistics and the organizational need for a separate logistics directorate to prepare for and respond to all future disasters. His goal is to build a logistics culture and a team of trained professionals that are proactive, anticipate disaster response requirements, and are always prepared to respond. His immediate focus is on developing his staff to be prepared for the full range of possible disaster incidents and on telling the 'logistics story' at every opportunity. Smith touts LMD advancements and its progress to improve its business practices by strengthening and enhancing its relationships with both the public and private sectors for more coordinated logistics response operations. "In 2007, preparations for Hurricane Dean, the response

to the California Wildfires, mid-west ice storms and the West Coast winter storms, successfully proved the new business processes and the new 'National Logistics Coordinator' concept."²⁵ Moreover, Smith is establishing a Logistics Credentials Program that will be used to train and certify his employees. He says the intent is to focus on core performance standards and proficiency levels while blending management and leadership professional development.

LMD's Distribution Management Division (DMD)

Within the LMD, FEMA also created the Distribution Management Division (DMD) to perform a wide range of logistical management functions. The DMD is especially critical in support of major disasters and catastrophes. It provides critical equipment and supplies to an effected region in the event that local and state resources have been overwhelmed. The DMD's mission is to manage agency warehouse facilities and transportation systems used to receive, store, maintain, issue, distribute and to track supplies,²⁶ services materiel and equipment.²⁷ The DMD has several key logistics functions:

- Receive, store and issue commodities and equipment for domestic disaster support.
- Effectively manage the processing, routing, warehousing, packaging and transportation planning/execution
- Assist with development and use of warehousing and in-transit automated systems to provide real time visibility and accurate reporting and accountability.
- Collaborate with customers to develop and prepare modular support kits designed for special purpose events or missions.
- Manage FEMA owned and commercial transportation program.

- Plan, evaluate, develop, coordinate and execute policies relative to the CONUS and OCONUS transportation and traffic management functions.
- Plan and manage emergency transportation operations.²⁸

The DMD uses a requirements determination process to determine what supplies to stock in anticipation of future disasters. A Distribution Management Strategy Working Group was formed with Federal, private and nongovernmental organization (NGO) logistics partners to determine where to stock and what to stock. The Working Group uses historical data and estimations based on consumption factors and lessons learned from previous support requirements. Working Group partners include General Services Administration (GSA), DoD, Defense Logistics Agency (DLA), Health and Human Services, U.S. Army Corps of Engineers, and the American Red Cross.²⁹ The group works to rightsize inventory levels; determine the most effective strategic supply and service infrastructure needed to transition into a regional area support strategy; and considers all critical distribution and supply chain management factors to develop an overarching concept that effectively meets emergency management support responsibilities.³⁰

The DMD also manages supplies and equipment at the eight Distribution Centers³¹ that are used to rapidly respond to future logistics requirements. The intent is to stock the forecasted immediately required supplies and proactively “push” specified commodities to the disaster area in anticipation of requirements without waiting for State requests. This is in contrast to the old and traditional “pull system” which requires a state to request assistance before a requirement is moved forward or filled by FEMA.

Additionally, the Logistics Management Directorate has taken several measures to prevent the previously referenced supply mismanagement incidents from occurring.

Their Distribution Management Division is improving the organizational emphasis on logistical preparedness and is moving toward a “just in time” logistics support concept. This enables newer and fresher stocks that are in high demand during disasters to be ordered directly from suppliers and designates only immediately required “surge sensitive” supplies to be actually stocked at the Logistics Centers. These commonly needed supplies can be used to support any type of disaster, natural or man-made. In cases where it is not efficient or practical to stock these commodities, DMD will coordinate with other agencies that may have these resources available. For example, the Army Corps of Engineers (ACOE) has contracts in place to provide ice. Thus, DMD can take advantage of these contracts that are already awarded and avoid, for example, being stuck with large stocks of ice that is unneeded and has to be melted.

FEMA and the Budget

For the first time, FEMA participated in the funding process and received generous funding in the Fiscal Year (FY) 2008 Budget.³² Historically, FEMA received funding from the President’s Disaster Relief Fund. This fund was used to support a “Major Disaster” which could result from a hurricane, earthquake, flood, tornado or major fire which the President determined warranted supplemental federal aid.³³

Likewise, the DHS requested \$50.5B in funding for FY 2009 which represents an increase of 6.8 percent over the 2008 FY level.³⁴ If funded, this will enable DHS to fund several of FEMA’s initiatives that are designed to strengthen FEMA’s ability to build an effective emergency response logistical system and a culture of preparedness.³⁵

With these improvements in funding, planning, staffing, resourcing strategies and new organizational structure changes, FEMA is making great strides toward improving its readiness status.

U.S. Coast Guard

On 25 February 2003, the Coast Guard was placed under the DHS and now reports directly to the Secretary of Homeland Security. However, upon declaration of war and when Congress or President so directs, the Coast Guard operates under the Department of Defense as a service in the Department of the Navy. The Coast Guard has an important role in homeland security and its key logistics role is to enable the rapid deployment and resupply of available resources to the disaster area by keeping marine lines of supply open for all government and private sector relief transport.³⁶ The important and adaptive role of the Coast Guard was clearly demonstrated by the assumption of overall control of the Katrina federal relief efforts by Coast Guard Vice Admiral Thad Allen after the FEMA director was relieved of his duties.³⁷

Department of Health and Human Services

The Department of Health and Human Services performs related medical logistics requirements for disaster response. Emergency Support Function (ESF) #8 – Public Health and Medical Services, provides the mechanism for coordinated “Federal assistance to augment State, tribal, and local resources responding to a public health and medical disaster, potential or actual incidents requiring a coordinated Federal response, and/or during a developing potential health and medical emergency.”³⁸ From a logistics perspective, Emergency Support Function (ESF) #8 – Public Health

and Medical Services, provides critically needed health, medical, veterinary equipment and supplies as well as potable water and wastewater and solid waste disposal.

Defense Logistics Agency (DLA)

The Defense Logistics Agency (DLA) is the largest agency in the Department of Defense and provides pre-disaster preparation and planning, support during a disaster, and post-disaster support to FEMA. DLA acts as a procurement agent for FEMA for DLA managed commodities. Most of DLA commodity support consists of meals-ready-to eat (MRE); however, they also provide water, fuel, medical supplies, repair parts, bedding, generators, maps, lumber, sandbags, cots and blankets.³⁹ During Hurricane Katrina, 22 DLA personnel deployed in support of Hurricane Katrina. As a result of lessons learned, DLA increased its MRE inventory to be better prepared to respond to future FEMA requirements.

Other Department of Defense (DOD) Organizations

Besides DLA, the DOD provides a wide range of operational and logistics support resources for domestic disaster response missions. Particularly important to FEMA is the role of the National Guard who is available for activation and employment in support of the State governors' disaster response requirements, or can be federalized and employed by the federal government as a federal response capability. Importantly, DOD resources are used at the federal level when other FEMA resources have either been expended or cannot respond in the required time. Additionally, U.S. Joint Forces Command (USJFCOM) plans, conducts exercises, and is a principle force provider for defense support to civil authorities (DSCA) missions. Likewise, U.S. Northern Command (NORTHCOM) provides "command and control of Department of Defense

(DoD) homeland defense efforts and coordinates defense support of civil authorities.”⁴⁰

They also plan for and participate in exercises and through their component command (U.S. Army North) are fully integrated within the 10 FEMA regions and train with key personnel assigned. When requested and validated through the appropriate defense coordination channels, the immense logistics and sustainment resources of the Department of Defense can be mobilized and employed as part of the federal response to domestic emergencies.

Key Strategic Documents

The National Strategy for Homeland Security

The *National Strategy for Homeland Security* was first released in 2002 and was recently revised and released in Oct 07. The strategy focuses predominately on the terrorist threat but recognizes and emphasizes the need for disaster response preparedness. Significantly, it cites the devastation caused by hurricane Katrina and applies those lessons within the new strategy. In the chapter “Respond to and Recover From Incidents” the strategy directly addresses the need to preposition commodities in the potential disaster area and “establish response facilities to effectively receive, stage, track and integrate incoming resources and capabilities into ongoing operations.” It also specifies that support personnel are to be located in “staging areas to receive commodities so that they can be integrated into operations in support of the State and then distributed to communities.” The strategy then goes on to explain that for the efficient use of resources the federal government “will continue to develop comprehensive and integrated logistics systems and procedures that enhance our Nation’s overall response capabilities.”⁴¹ This is a clear recognition of the need to better

integrate and coordinate logistical support activities across the interagency and other public and private responders both prior to and following an incident.

National Response Framework (NRF)

In 2004, as directed in *Homeland Security Presidential Directive-5 (HSPD)-5*, Department of Homeland Security published its *National Response Plan (NRP)* to align Federal coordination structures, capabilities, and resources into a unified, all-discipline, and all-hazards approach to domestic incident management. One of the key policies outlined in HSPD-5 focuses on the U.S. Government's responsibility to coordinate the efforts of all Federal, state, local and tribal levels of government in response to domestic incidents.⁴² In January 2008, DHS released the *National Response Framework (NRF)* which replaces the *NRP* and becomes effective March 22, 2008. The *NRF* focuses on both response and short-term recovery, outlines the doctrine, key principles, and overall organizational approach for the preparation and response to all-hazard disasters with the participation of all levels of government and the private sector.⁴³ The *NRF* is a more streamlined and user-friendly version of the *NRP*. In a recent press conference, Homeland Security Secretary Michael Chertoff described the *NRF*:

In a nutshell, the National Response Framework boils down the key elements of what it means to have a unified and coordinated response. And the way the framework is written, together with the supporting annexes that are much more detailed planning guides, the National Response Framework is a less bureaucratic and more user-friendly plan that emergency managers and leaders all across the country at every level have themselves worked to create and now can benefit from. It's also, by the way, written in plain English.⁴⁴

The *NRF* is comprised of the core document, the Emergency Support Function (ESF), Support, and Incident Annexes, and the Partner Guides. When needed, FEMA calls up response support from the 15 Emergency Support Functions (ESFs).⁴⁵ At the

headquarters, regional, and field levels, ESFs provide staff to support the incident command sections for operations, planning, logistics, and finance/administration, as requested.⁴⁶ For purposes of this discussion, emphasis will be placed on the ESFs that are used in response to logistics requirements:

- “ESF #7 – Logistics Management and Resource Support ESF Coordinator:

General Services Administration and DHS (FEMA):

- Comprehensive, national incident logistics planning, management, and sustainment capability
 - Resource support (facility space, office equipment and supplies, contracting services, etc.).⁴⁷
- ESF #8 – Public Health and Medical Services ESF Coordinator: Department of Health and Human Services:
 - Public health
 - Medical
 - Mental health services
 - Mass fatality management”⁴⁸

As part of the NRF revision, ESF-7 annex was changed from Resource Support to "Logistics Management and Resource Support" with FEMA and GSA as co-leads.

Significantly, the NRF also outlines the Federal incident management field structure and a corresponding command and control organizational model, staff and key personnel positions and responsibilities, and standardized functions. Within the NRF, the Joint Field Office (JFO) is the primary Federal incident management headquarters and is designed to be the central location for representatives from Federal, state, other jurisdictional entities, private sector businesses, and NGOs.⁴⁹ This framework comprises the only real mechanism for coordinating and integrating the participating

organizations' resources and logistical support. The NRF does indicate that large disaster response efforts will "require sophisticated coordination and time-phased deployment of resources through an integrated logistics system" and that these "systems and venues must be established to receive, stage, track and integrate resources into ongoing operations."⁵⁰ However, it gives no further guidance in the base document or supporting JFO standard operating procedures⁵¹ how this integration should be carried out. Apparently, logistics coordination and integration measures must be uniquely addressed for each disaster response effort based upon the circumstances of that disaster and the exigent needs and desires of the responders.

Gulf Coast Response Concept of Operations (CONOPS) Hurricane Season, 2007

Illustrative of the logistical reform implementation is how it is surfacing within regional planning efforts and corresponding logistical preparations. The Gulf Coast Response CONOPS provides a good example of how logistical lessons from Katrina are working their way into associated regional plans. The CONOPS is part of FEMA's National Preparedness Framework for Regions IV and VI and is published annually. It "provides guidance on readiness, response, and initial recovery actions that will be taken by respective Regions in preparation for a hurricane affecting the Gulf Coast States."⁵² The CONOPS addresses prepositioned commodities that are used to provide logistics support in the various regions. "Resource Commodities have been prepositioned in designated States before an incident to provide a greater response effort. They will remain accountable and under FEMA Headquarters' control until there is a credible need. At that time, and upon a request, control of these resources will be transferred to the JFO."⁵³

Region IV's headquarters is located in Atlanta, GA and "works in partnership with the emergency management agencies of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee to prepare for, respond to and recover from disasters. Region IV's most common challenges are tornados, hurricanes and other storms that can cause flooding and wind damage throughout the region."⁵⁴

Likewise, Region VI provides assistance to the South Central Region of the United States to include Arkansas, Louisiana, New Mexico, Oklahoma and Texas. Region VI headquarters is located in Denton, TX.⁵⁵ This region's most common challenges are the same as Region IV. For both regions, logistics support is planned to be coordinated through the Regional Response Coordination Center until Regional Administrators and the Federal Coordinating Office (FCO) agree that the JFO or an Incident Management Team (IMT) can assume full operational capabilities in support of ongoing disaster response activities.⁵⁶ In summary, the CONOPS appears to have incorporated several logistical lessons from Katrina to better position supplies for emergency response, coordinate for a smooth and seamless management of supplies and logistical support transition for an escalating disaster response scale, and made provisions to fully integrate and coordinate local, state and Federal logistical response efforts.

Region IV is of particular interest to FEMA because the state of Florida is in this region. As a matter of record, Florida's disaster response is the most effective in America and serves as a national model.⁵⁷ Because of numerous hurricane response efforts, Florida has developed the organizational framework, processes, and procedures

to effectively prepare for and respond to major disasters. Thus, they can and should be emulated.

Florida continues to make substantial progress in preparing for, responding to and recovering from natural catastrophes. Moreover, what sets this state apart from many others is what some describe as a “Culture of Preparedness.”⁵⁸ Florida possesses a combination of well-defined and refined disaster response plans and procedures, a trained and practiced Division of Emergency Management (DEM), and an alert and disaster-sensitive populace. What makes their disaster response so effective is that their emergency management organizations and procedures have evolved over time to be almost completely compatible and seamless from the local through the State to the Federal levels. Across all jurisdictions, emergency responses have been designed for “bottoms up” integration with State and Federal organizations and processes. This includes their assumed role in coordinating and integrating logistics.

The State of Florida DEM Logistics Section Base Plan outlines their coordinating and integration missions, authorities, roles, responsibilities, and organizations. Its overall mission is:

to coordinate and support the state resource management process that plans, implements, and controls the efficient, effective flow of goods, services, and related information from the point of origin to the point of consumption. It does this in a unified manner in order to meet emergency requirements on behalf of the Division of Emergency Management involved in emergency response and recovery phases. It also acts as an agent on behalf of other state and local agencies to locate, facilitate acquisition, deployment, management and recovery of necessary emergency resources.⁵⁹

Through this and other logistic-related supporting plans,⁶⁰ requirements for supplies and equipment are forecasted and supplied at the lowest level and, when those amounts are exceeded, requests are forwarded up through channels that are

already established and functioning. It is significant that the NRF “bottoms up” tiered response concept depends on the “bottom” to be organized and competent. This is clearly the case in Florida and can be contrasted with those of Louisiana.

Notwithstanding superbly organized efforts and well refined processes at the federal level, if the local and state organizations and processes are disorganized, incompetent, or nonexistent, then federal support will be coarse and ineffective. It is like forcing the glass slipper on the ugly step-sister...instead of Cinderella. In the final analysis, the individuals residing in disaster areas where there are poorly developed local or state response systems will “get what they elect.”

Conclusions

Command and Control

During a national crisis, the biggest challenge is sharing information and coordinating procedures among all civil authorities. Command and Control during Hurricane Katrina was a major problem among all Federal, state and local level participants. Since then, various Federal agencies, DoD and non-DoD, have participated in National Level Exercises, experimentation campaigns and other training opportunities to ensure agencies and governments at the Federal, state and local levels understand their roles and relationships and take the appropriate actions necessary. Additionally, FEMA's newly organized Logistics Management Directorate and Distribution Management Division are aggressively implementing Katrina lessons and improving the integration and coordination of both logistical plans and related processes. Additionally, renewed planning efforts and products from the Federal, state,

and local levels and subsequent post-Katrina disaster responses reflect progressive improvement in the unity of effort for both disaster planning and disaster responses.

Funding

U.S. Department of Homeland Security (DHS) has been proactive and articulate in identifying funding requirements. Funding has enabled them to reorganize and staff a new Logistics Management Directorate. Furthermore, an increase in DHS's budget in FY 2008 and the budget request in FY 2009 is an indication that the Administration and the Congress acknowledges the need to provide adequate resources to enable DHS and FEMA to prepare for, prevent, mitigate the effects of, respond to, and recover from all disasters, whether natural or man-made.

Culture of Preparedness

The new *National Response Framework* (NRF) is a vast improvement over the previous *National Response Plan* (NRP). It goes to the core of preparedness and lays out the processes and procedures that are much easier to understand and hopefully easier to execute. This will potentially improve logistical coordination and integration activities as well. The NRF has incorporated some important lessons learned from Hurricane Katrina and other catastrophic events and put together a framework that promises to enable Federal, state, local and private sectors to prepare for, respond to and recover from local emergencies to regional or national incidents.

Logistics Progress

FEMA now has a direct relationship with DLA based on an Interagency Agreement that was signed on March 31, 2006.⁶¹ This allows FEMA to come directly to DLA for commodity support instead of having to work through the mission assignment process

which was a lengthy and time-consuming activity. Under the mission process FEMA was required to submit all requests through the Joint Director of Military Support (JDOMS) and eventually to the Assistant Secretary of Defense for Homeland Defense/Americas' Security Affairs (ASD(HD/ASA)) for approval. The new agreement drastically cuts down the time it takes to complete a request for commodities and enables DLA to work directly with FEMA without going to ASD(HD/ASA) for approval.

Successes Since Katrina

FEMA's response to Hurricane Katrina did not inspire the confidence of the American people; and even though FEMA continues to be under scrutiny and to receive criticism, progress was made in 2007 and has paved the way for future progress in 2008. Highlights of current progress include:

FEMA has reorganized to strengthen its agency and to provide additional resources to support its mission.

FEMA's leadership has built a New FEMA vision that focuses on FEMA's core competencies.

FEMA led the federal response to 63 major presidential disasters and 13 emergency declarations and has issued 60 Fire Management Assistance Grants to assist communities to lessen or avert catastrophe from wildfires.⁶²

This past season's successes in fire and tornado disaster responses are a good indicator of better preparedness.

FEMA has high hopes for the future and "will focus renewed resources on improved coordination with partners in and out of government, including: expanded exercises, training programs and grants; stronger logistics management and disaster operations capabilities; and improved disaster assistance programs."⁶³

Summary

The challenges that we face as a nation in preparing for and responding to major disasters and catastrophes whether natural or man-made are great. To be better prepared for the future will require the continued support of Congress in providing the necessary resources. Once the state, local, tribal and private sectors have exceeded their capabilities or have been overwhelmed, the Federal agencies and FEMA in particular must be prepared to intervene in a seamless fashion and provide the needed supplies and equipment to respond to future emergencies. Logistical preparedness and the supporting organizations, systems and processes are essential to overall mission success. Clearly, FEMA and DHS have made substantial progress towards improved logistical planning and support. However, performance to date has been for responses to incidents well below the Katrina-level catastrophic threshold. For FEMA, the States and local governments, challenges certainly remain. For an effective “bottoms-up” system to work, all levels of responders must be competent, trained and familiar with integrative and coordination mechanisms. With the continued efforts and commitment of all agencies involved and support of the Congress, America will not have to suffer through the inadequate response that the world observed in the aftermath of Hurricane Katrina.

Recommendations

- FEMA should continue to aggressively pursue the funding necessary to train its staff and fund the logistics resources needed for its “push” strategy that places resources where and when they are needed early on in a disaster. Moreover, it should pro-actively focus its training, exercise and assistance efforts on improving and

developing local and state governments that currently have rudimentary capability and are in high-risk areas. The disaster response systems developed in Florida can be used as a useful template.

- The DHS should focus its efforts on better integrating and coordinating logistical support activities across interagency and other public and private responders both prior to and after an incident. This could include expanding integration efforts to: eliminate unnecessarily redundant service supply and distribution chains; improve cross-agency inventory and in-transit asset visibility; further refine standardized request and support procedures so that they are applicable and can be adopted at the local through federal levels; and begin developing a common logistical management Information Technology (IT) system and data base for use across all states and local jurisdictions.

- DHS and FEMA should develop an aggressive “Strategic Communications Plan” and implement it immediately to help inform the public of its reform efforts and reassure the public that our government is prepared to deal with disasters and catastrophes whether man made or natural. This will also help DHS to solicit continued support from the President and Congress to provide the funding necessary for success.

Endnotes

¹ Frances Fragos Townsend, Assistant to the President for Homeland Security and Counterterrorism, “Letter to the President,” in *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, D.C.: The White House, February 2006).

² Ibid., 1, 5, 62.

³ Mike M. Ahlers, CNN.COM, “Report: Criticism of FEMA's Katrina Response Deserved,” 14 April 2006, available from <http://www.cnn.com/2006/POLITICS/04/14/fema.ig/index.html>; Internet; accessed 12 March 2008.

⁴ The White House, *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, D.C.: The White House, February 2006), 51. The 17 challenges included: National Preparedness; Integrated Use of Military Capabilities; Communications; Logistics and Evacuations; Search and Rescue; Public Safety and Security; Public Health and Medical Support; Human Services; Mass Care and Housing; Public Communications; Critical Infrastructure and Impact Assessment; Environmental Hazards and Debris Removal; Foreign Assistance; Non-Governmental Aid; Training, Exercises, and Lessons Learned; Homeland Security Professional Development and Education; and Citizen and Community Preparedness.

⁵ Ibid., 56.

⁶ Ibid.

⁷ U.S. Army War College, Department of Command, Leadership, and Management, *How the Army Runs: A Senior Leaders Reference Handbook 2007-2008* (Carlisle, Barracks; U.S. Army War College, 2007-2008) 12-3, 264. Logistics refers to supplies, equipment, services and transportation required to support catastrophes and disasters. Supply classes include I (subsistence e.g. food and water); II (clothing and textiles e.g. everything from expendable office supplies, clothing and individual equipment, and tools to tents); III (petroleum, oil and lubricants); IV (Construction and barrier material); V (ammunition but not applicable to this paper); VI (Sundries e.g. health and comfort items that can be purchased commercially); VII (major end items e.g. trucks, tanks, Bradley fighting vehicles, generators, etc.); VIII (medical supplies); repair parts and major assemblies) and X (Non-military or civil-governmental unique items).

⁸ U.S. Department of Homeland Security, *National Response Plan* (Washington, D.C.: U.S. Department of Homeland Security, December 2004), 43.

⁹ Ibid., 3.

¹⁰ Ibid., 4.

¹¹ Pam Fessler, National Public Radio, "Experts Challenge Homeland Security Strategy," 16 January 2008; available from <http://www.npr.org/templates/story/story.php?storyId=18118652>; Internet; accessed 19 January 2008.

¹² U.S. Department of Homeland Security, *Securing Our Homeland, U.S. Department of Homeland Security Strategic Plan*, (Washington, D.C.: U.S. Department of Homeland Security, 2004), 9. The seven DHS goals are (1) Awareness: Identify and understand threats, assess vulnerabilities, determine potential impacts and disseminate timely information to our homeland security partners and the American public; (2) Prevention: Detect, deter and mitigate threats to our homeland; (3) Protection: Safeguard our people and their freedoms, critical infrastructure, property and the economy of our nation from acts of terrorism, natural disasters, or other emergencies; (4) Response: Lead, manage and coordinate the national response to acts of terrorism, natural disasters, or other emergencies; (5) Recovery: Lead national, state, local and private sector efforts to restore services and rebuild communities after acts of terrorism, natural disasters, or other emergencies; (6) Service: Serve the public effectively by facilitating lawful trade, travel and immigration; and (7) Organizational Excellence: Value our most important resource, our people. Create a culture that promotes a common identity, innovation, mutual

respect, accountability and teamwork to achieve efficiencies, effectiveness and operational synergies.

¹³ U.S. Department of Homeland Security, Securing Our Homeland, *U. S. Department of Homeland Security Strategic Plan*, 28.

¹⁴ U.S. Department of Homeland Security, "Fact Sheet: U. S. Department of Homeland Security Announces 6.8 Percent Increase in Fiscal Year 2009 Budget Request," 4 February 2008; available from http://www.dhs.gov/xnews/releases/pr_1202151112290.shtm; Internet; accessed 4 February 2008.

¹⁵ Federal Emergency Management Agency, "About FEMA What We Do," 16 October 2007, available from <http://www.fema.gov/about/index.shtm>; Internet; accessed 4 February 2008.

¹⁶ Federal Emergency Management Agency, "FEMA's Organization Structure Regional Operations," 26 February 2008; available from <http://www.fema.gov/about/structure.shtm>; Internet; accessed 1 March 2008. The ten FEMA regions include: Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont); Region II (New Jersey, New York, Puerto Rico, and the Virgin Islands); Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia and W. Virginia); Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, N. Carolina, S. Carolina and Tennessee); Region V (Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin); Region VI (Arkansas, Louisiana, New Mexico, Oklahoma and Texas); Region VII (Iowa, Kansas, Missouri and Nebraska); Region VIII (Colorado, Montana, N. Dakota, S. Dakota, Utah and Wyoming); Region IX (Arizona, California, Hawaii, Nevada, American Samoa, Guam, Commonwealth of the Northern Mariana Islands, Republic of the Marshall Islands, and Federated States of Micronesia); Region X (Alaska, Idaho, Oregon and Washington)

¹⁷ Federal Emergency Management Agency, "National Flood Insurance Program Announces Simplified Adjustment Process For Policyholders Affected By Hurricane Katrina After Hurricane Katrina," 9 September 2005; available from <http://www.fema.gov/news/newsrelease.fema?id=19018>; Internet; accessed 4 February 2008.

¹⁸ "SourceWatch, "Robert T. Stafford Disaster Relief and Emergency Assistance Act," 29 August 2005; available from http://www.sourcewatch.org/index.php?title=Robert_T._Stafford_Disaster_Relief_and_Emergency_Assistance_Act; Internet; accessed 11 January 2008. "The Stafford Act authorizes the President to issue major disaster declarations that authorize federal agencies to provide assistance to states overwhelmed by disasters. Through executive orders, the President has delegated to the Federal Emergency Management Agency (FEMA), within the Department of Homeland Security (DHS), responsibility for administering the major provisions of the Stafford Act. Assistance authorized by the statute is available to individuals, families, state and local governments, and certain nonprofit organizations. Activities undertaken under authority of the Stafford Act are provided through funds appropriated to the Disaster Relief Fund (DRF). Federal assistance supported by DRF money is used by states, localities, and certain non-profit organizations to provide mass care, restore damaged or destroyed facilities, clear debris, and aid individuals and families with uninsured needs, among other activities.

¹⁹ Federal Emergency Management Agency, "Federal-Level Partners," 1 April 2007, available from <http://www.fema.gov/about/fedpart.shtm>; Internet; accessed 4 February 2008.

²⁰ Spencer S. Hsu, "Tons of Food Spoiled as FEMA Ran Out of Storage Space," *Washington Post*, 13 April 2007 [newspaper on-line]; available from <http://pqasb.pqarchiver.com/washingtonpost/access/1253938441.html?dids=1253938441:1253938441&FMT=ABS&FMTS=ABS:FT&date=Apr+13%2C+2007&author=Spencer+S+Hsu+-+Washington+Post+Staff+Writer&pub=The+Washington+Post&edition=&startpage=A.1&desc=Tons+of+Food+Spoiled+As+FEMA+Ran+Out+Of+Storage+Space>; Internet; accessed 10 February 2008.

²¹ "FEMA Red-Faced Over Staged News Conference," *United Press International*, 30 October 2007 [newspaper on-line]; available from http://www.upi.com/NewsTrack/Top_News/2007/10/30/fema_redfaced_over_staged_news_conference/3126/; Internet; accessed 10 February 2008.

²² Summer Banks, "Doesn't FEMA Know There Are Starving Children? \$40 Million in Food Thrown Away!" *Associated Content -The People's Media Company*, 13 April 2007 [newspaper on-line]; available from http://www.associatedcontent.com/article/213790/doesnt_fema_know_there_are_starving.html; Internet; accessed 10 February 2008.

²³ Eileen Sullivan, "FEMA to Melt \$24 Million in Unused Ice," *Congressional Quarterly*, 16 July 2007 [newspaper on-line]; available from <http://www.cqpolitics.com/wmspage.cfm?docID=hsnews-000002551979>; Internet; accessed 10 February 2008.

²⁴ William Eric Smith, Assistant Administrator, Logistics Management Directorate, Federal Emergency Management Agency, interview by author, Washington, D.C., 18 January 2008.

²⁵ Ibid.

²⁶ Maj Mary Ann Garbowski, Federal Emergency Management Agency/Logistics Management Directorate/Distribution Management Division, e-mail answers to questions generated by author, 20 February 2008. The DMD stocks equipment and supplies (commodities) to include emergency generators (Power-packs-50), portable toilet kits, refrigerated vans in limited quantity, medical kits, water, meals (baby food, formula, meals-ready-to eat and commercial meals), blankets, cots, hygiene kits (retrofitted to comfort kits), tents, cleanup kits, tarps, plastic sheeting, generators, Joint Field Office (JFO) kits, sandbags and other non-perishable consumables (trash bags, toilet paper, and paper towels).

²⁷ Maj Mary Ann Garbowski, Federal Emergency Management Agency/Logistics Management Directorate/Distribution Management Division, "Logistics Management Directorate" e-mail brief to author, 20 February 2008, 6.

²⁸ Ibid.

²⁹ Federal Emergency Management Agency, "Logistics Management Directorate Fact Sheet - Distribution Management Strategy Working Group," 31 January 2008; available from http://www.fema.gov/media/fact_sheets/lmd.shtm; Internet; accessed 2 March 2008.

³⁰ Ibid.

³¹ Federal Emergency Management Agency, "Fact Sheet: Logistics Centers," 16 June 2006; available from <http://www.fema.gov/pdf/media/2006/logistic-centers.pdf>; Internet;

accessed 20 February 2008. The DMD currently has eight Logistics Centers (LCs) that are used to store (five in the continental U.S. and three in U.S Territories) commodities and equipment in support of future disasters and catastrophes. The LCs are located near Atlanta, GA; Berryville, VA; Ft. Worth, TX; Frederick, MD; and San Jose, CA (Moffett Field). The three offshore LCs are located in Guam, Hawaii and Puerto Rico. Additionally, FEMA also stocks commodities in the Emergency Housing Distribution and Logistics Center located in Cumberland, MD).

³² Federal Emergency Management Agency, "FEMA's FY 2008 Budget Request," 9 March 2007; available from <http://www.fema.gov/news/newsrelease.fema?id=34749>; Internet; accessed 4 February 2008. "The FY 2008 budget request reflects the first year of a three-year phased approach that will improve the core competencies necessary to meet FEMA's commitment to serve the public and be the Nation's Preeminent Emergency Management Agency. The requested total funding for the legacy Preparedness programs transferred to FEMA and FEMA's existing programs, represents an 11 percent increase or \$601 million for a total of \$5.8 billion in FY 2008. The requested \$8.02 billion in funding requested presents a cohesive picture of how the newly redesigned FEMA will be funded and operate."

³³ Federal Emergency Management Agency, "The Disaster Process and Disaster Aid Programs," 13 September 2006; available from <http://www.fema.gov/hazard/dproc.shtm>; Internet; accessed 4 February 2008.

³⁴ U.S. Department of Homeland Security, "Fact Sheet: U.S. Department of Homeland Security Announces 6.8 Percent Increase in Fiscal Year 2009 Budget Request, Build a Nimble and Effective Emergency Response System and Culture of Preparedness" 4 February 2008; available from http://www.dhs.gov/xnews/releases/pr_1202151112290.shtm; Internet; accessed 4 February 2008. Budget initiatives include: (1) An increase of \$64.5 million in funding to support the Federal Emergency Management Agency's (FEMA) Vision- Shape the Workforce program. Phase II of FEMA's transformation will strengthen FEMA's ability to marshal an effective national response, deliver service of value to the public, reduce vulnerability to life and property, and instill public confidence; (2) Total funding of \$2.2 billion will support FEMA's state and local assistance programs, which prepares state and local governments to prevent or respond to threats or incidents of terrorism and other catastrophic events. This funding will support existing Homeland Security grants, Port and Rail Security grants and Emergency Management Performance grants, and also proposes a new discretionary grant program targeted towards high priority security initiatives including REALID implementation; (3) Total funding of \$209 million will support FEMA's disaster workforce, which will transition 4-year Cadre On-Call Response Employees from temporary to permanent full-time personnel. This transition will achieve the level of readiness and response capability required in response to major disasters and emergencies declared by the president. An additional \$200 million is provided in a new Disaster Readiness and Support Activities account to assist FEMA in working with state and local partners in preparing for future disasters and institutionalizing logistical and other capabilities in support of state disaster readiness leadership; (4) A funding increase of \$43 million to support S&T laboratory facilities to include initial operations of the National Bio-defense Analysis and Countermeasures Center (NBACC). NBACC will provide the nation with essential bio-containment laboratory space for biological threat characterization and bio-forensic research. The programs conducted at NBACC will provide knowledge of infectious properties of biological agents, effectiveness of

countermeasures, decontamination procedures, and forensics analyses to support policy makers and responders' development of policies, programs, and technologies."

³⁵ U.S. Department of Homeland Security, "Fact Sheet: U.S. Department of Homeland Security Announces 6.8 Percent Increase in Fiscal Year 2009 Budget Request, Build a Nimble and Effective Emergency Response System and Culture of Preparedness."

³⁶ U.S. Coast Guard: U.S. Department of Homeland Security, "Homeland Security," available from <http://www.uscg.mil/hq/g-cp/comrel/factfile/Factcards/Homeland.htm>; Internet; accessed 4 February 2008.

³⁷ James Kitfield, "Coast Guard Official Fills Leadership Void in Katrina Relief Effort," *National Journal*, 23 September 2005; available from <http://www.govexec.com/dailyfed/0905/092305nj1.htm>; Internet; accessed 15 March 2008.

³⁸ Federal Emergency Management Agency, "Emergency Support Function #8 – Public Health and Medical Services Annex," 1 January 2008; available from <http://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf>; Internet; accessed 10 January 2008, ESF #8-1.

³⁹ Ralph Laurie, Liaison Officer to NORTHCOM, Region IV, Defense Logistics Agency, telephone interview by author, 11 December 2007.

⁴⁰ "About USNORTHCOM," linked from *United States Northern Command Defending Our Homelands*; available from <http://www.northcom.mil/About/index.html>; Internet; accessed 10 January 2008.

⁴¹ Homeland Security Council, *National Strategy for Homeland Security* (Washington, D.C.: The White House, October 2007), 34-37. The strategy states: "America is at war with terrorist enemies who are intent on attacking our Homeland and destroying our way of life. The lives and livelihoods of the American people also remain at risk from natural catastrophes, including naturally occurring infectious diseases and hazards such as hurricanes and earthquakes, and man-made accidents. Our *National Security Strategy for Homeland Security* recognizes that while we must continue to focus on the persistent and evolving terrorist threat, we must address the full range of potential catastrophic events, including man-made and natural disasters, due to their implications for homeland security."

⁴² "Homeland Security Presidential Directive/HSPD-5, Management of Domestic Incidents," linked from *The White House Home Page*; available from <http://www.whitehouse.gov/news/releases/2003/02/20030228-9.html>; Internet; accessed 10 February 2008. HSPD-5 states: "To prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies, the U.S. Government shall establish a single, comprehensive approach to domestic incident management. The objective of the U.S. Government is to ensure that all levels of government across the Nation have the capability to work efficiently and effectively together, using a national approach to domestic incident management. In these efforts, with regard to domestic incidents, the United States Government treats crisis management and consequence management as a single, integrated function, rather than as two separate functions."

⁴³ U.S. Department of Homeland Security, "National Response Framework Released" 22 January 2008, available from http://www.dhs.gov/xnews/releases/pr_1201030569827.shtm; Internet; accessed 22 January 2008.

⁴⁴ Federal Emergency Management Agency, "Remarks by Homeland Security Secretary Michael Chertoff and Federal Emergency Management Agency Administrator R. David Paulison at a Press Conference on the National Response," 22 January 2008; available from http://www.dhs.gov/xnews/speeches/sp_1201092657616.shtm; Internet; accessed 22 January 2008.

⁴⁵ U.S. Department of Homeland Security, "National Response Framework Released," 57. The ESFs are critical in responding to a disaster or catastrophe regardless of the type of incident. "The ESFs are coordinated by FEMA through its National Response Coordination Center (NRCC). During a response, ESFs are a critical mechanism to coordinate functional capabilities and resources provided by Federal departments and agencies, along with certain private-sector and nongovernmental organizations. They represent an effective way to bundle and funnel resources and capabilities to local, tribal, State, and other responders. These functions are coordinated by a single agency but may rely on several agencies that provide resources for each functional area. The mission of the ESFs is to provide the greatest possible access to capabilities of the Federal Government regardless of which agency has those capabilities."

⁴⁶ Ibid., 60.

⁴⁷ Ibid., 58.

⁴⁸ Ibid., 78.

⁴⁹ U.S. Department of Homeland Security, "National Response Framework Released," 60-61.

⁵⁰ Ibid., 35.

⁵¹ Department of Homeland Security, *Joint Field Office Activation and Operations: Interagency Integrated Standard Operating Procedure, Version 8.3* (Washington, D.C.: U.S. Department of Homeland Security, April 2006, 50-70.

⁵² Federal Emergency Management Agency, *Gulf Coast Response Concept of Operations (CONOPS) Hurricane Season, 2007* (Atlanta, GA, Federal Emergency Management Agency, updated), document provided by COL Robert Mayr's e-mail message to author, 11 Nov 2007.

⁵³ Ibid., paragraph 4.B.

⁵⁴ Federal Emergency Management Agency, "FEMA Region IV Serving AL, FL, GA, KY, MS, NC, SC, TN," 14 December 2007; available from <http://www.fema.gov/about/regions/regioniv/index.shtm#what>; Internet; accessed 28 February 2008.

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⁵⁶ Federal Emergency Management Agency, *Gulf Coast Response Concept of Operations (CONOPS) Hurricane Season, 2007*.

⁵⁷ Florida Division of Emergency Management, "Governor Bush Stresses Priorities in 2006 State of the State Address," linked from *The FloridaDiaster.org, Florida Division of Emergency Management Home Page* at "About Us," available from http://www.floridadisaster.org/eoc/eoc_activations/Wilma05/Reports/GovernorBUSHADDRESS06.pdf; Internet; accessed 11 January 2008.

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⁵⁹ Florida Division of Emergency Management, "2310 Logistics Section Base Plan," available from: <http://www.floridadisaster.org/EMIT/Accreweb/Documents/Operations/Logistics/LogisticsPlan.doc>; Internet; accessed 15 March 2008.

⁶⁰ Florida Division of Emergency Management, "Emergency Management Accreditation Program (EMAP): Chap. 3, Sec. 3-10.1 Logistics & Facilities," available from <http://www.floridadisaster.org/EMIT/Accreweb/Frameset.htm>; Internet; accessed 15 March 2008; see also "Deployment and Planning Branch Standard Operating Guideline," "Movement Coordination Center (MCC) Standard Operating Guideline," "Reception, Staging, Onward Movement & Integration (RSOI) Plan," and "Mutual Aid Branch Standard Operating Guideline," linked on *Florida Division of Emergency Management Home Page*, available from <http://www.floridadisaster.org>; Internet; accessed 15 March 2008.

⁶¹ Ralph Laurie, Defense Logistics Agency, Liaison Officer to NORTHCOM, Region IV, interview by author, 11 December 2007.

⁶² Federal Emergency Management Agency, "New FEMA 2008 - Moving the Vision Forward," 1 February 2008; available from http://www.fema.gov/media/fact_sheets/new_fema_08.shtm; Internet; accessed 4 February 2008.

⁶³ Ibid.

